IV. *A remarkable new genus and new species of* Odonata, *of the legion* Podagrion, *Selys, from North Queensland.*

By Kenneth J. Morton.

[Read February 4th, 1914.]

Plate IX.

The recent appearance of three important memoirs by Ris * and Tillyard † relating to the Odonata of the Austro-Malayan region turned my attention to the Zygoptera of a small lot of dragon-flies which I obtained a few years ago purporting to come from Cape York, North Queensland. From the character of the larger species in the collection, there seems to be no reason to doubt the correctness of the locality. As far as I have been able to examine the smaller insects, they appear to belong to described species with the exception of one example which proves to be of rare interest in respect that the proximal side of the quadrilateral is absent in the fore-wing, a peculiarity, as far as I know, hitherto considered unique in the Australian *Hemiphlebia mirabilis*, Selys. On sending a short account of this insect to Dr. Ris, he informed me that he was acquainted with nothing like it either in nature on in the literature and he urged its early description. Subsequently when forwarding some other material to Dr. Ris, I included the Cape York insect. He confirmed his former view, and kindly volunteered to make wing photographs which lighten so much the work of description.

The species, of course, forms the type of a new genus. Notwithstanding the important character above alluded to, it cannot, however, be referred to even the same Legion (*Agrion*) as *Hemiphlebia*, and it seems to find a more natural place in the Legion *Podagrion*. The rather heavy pterostigma, the character of the appendages and the

* "Odonata von den Aru- und Kei Inseln," etc.: Abhandl. der Senkenbergischen Naturforsch. Gesell. Bd. xxxiv, pp. 503–536 (1913).

"Resultats de l'Expedition Scient. Neerlandaise à la Nouvelle-Guinée," vol. ix, Zoologie, Livr. 3, pp. 471–512: Odonata.

† "On some new and rare Australian Agrionidae:" Proc. Linn. Soc. of N.S.W., 1912, vol. xxxvii, part 3, pp. 404–479 (1913).

evident relationship with *Synlestes* and *Chlorolestes* are favourable to this association in spite of the absence of supplementary sectors which have been regarded as essential features of the *Podagrion* genera, *Perilestes* alone being without them.

Chorismagrion, nov. gen.

Nodus about one-third of the distance between the base of the wing and the distal side of the pterostigma. Basal side of the quadrilateral absent in fore-wings as in *Hemiphlebia*. In hind-wings, anterior side of the quadrilateral about $\frac{2}{5}$ the length of the posterior.

A* separates from the inner margin distad to Cuq at above the level of the costo-distal angle of the quadrilateral. The two Anq placed at nearly equal distance from each other and from the base of the wing and nodus respectively. Cuq placed nearer 1 Anq, about $\frac{1}{3}$ of the distance between 1 and 2 Anq. Cu^1 arched at the base. M^3 from or very near the sub-nodus; Rs at about 4 Pnq in fore-wings, and 3 Pnq in hind-wings. M^2 three cells further; M^{1a} about two cells still further (but rather unstable ranging from between one-third and one-half the distance between the nodus and the proximal side of the pterostigma). Supplementary sectors absent.

Second joint of antennae rather more than twice the length of the basal joint, the third longer than the first two together.

Legs slender with rather long and fine spines; claws long with a well-defined tooth. Superior appendages forcipate. Ligula cleft for about $\frac{1}{3}$ of its length, the lobes rather narrowly separate, tapering but blunt at the apex.

Chorismagrion risi, n. sp.

♂. The whole of the head behind the antennae dull black; vertex frons nasus rhinarium and labrum brilliant metallic green with violet reflections; genae, base of the mandibles and basal joints of the antennae yellowish; last joint of antennae black. Underside of mouth parts mostly yellowish.

Pronotum mostly orange broadly black at the sides. Mesepisterna orange, slightly infuscated, dorsal carina black; mesepimera, mesinfraepisterna, metepisterna and a small triangle of metepimera near the bases of hind-wings blackish with traces of yellow near the wing-bases. Underside of thorax and the legs, pale yellowish.

Abdomen very dark green or blackish probably becoming bronzed, first and second segments with the dorsum broadly yellowish, the

same colour apparently continued narrowly along the dorsum of 3rd segment; 9th segment yellowish or orange above, probably 10th segment partly marked with the same colour. Proximal ends of segments 4, 5 and 6 above and 3, 4, 5, 6 and 7 beneath marked or ringed with whitish.

Superior appendages longer than 10 and rather shorter than 9. Viewed from above they are broadest at the base at first slightly divergent then rather abruptly they converge becoming flatter or somewhat concave after the geniculation. About half-way between the head and the rounded apex, above, an interruption simulating a joint. Seen from the side these appendages are nearly straight and void of striking character save the indication of the false joint.

Inferior appendages about $\frac{1}{3}$ as long as the superior. Viewed in profile, they are somewhat triangular with a conspicuous process; seen from beneath they are closely approximate for about two-thirds of their length, each terminating in a divergent curved process; between these processes there appear to be blades with spinulose edge.

Wings hyaline very faintly tinged with brownish, especially between costa and radius. Pterostigma short and broad, dark brown or blackish with a large orange spot which touches the costa.

♀. unknown.

Length of abdomen, 34 mm.; hind-wings, 22 mm.

I have pleasure in dedicating this interesting species to Dr. Fr. Ris, Rheinau, the distinguished Monographer of the Libelluninae, in recognition of many kindnesses received at his hands during a friendship of over twenty years.

Of Australian genera, *Chorismagrion* is perhaps most closely related to *Synlestes*, although differing therefrom in several important respects in addition to the absence of the basal side of the quadrilateral in the fore-wings. In *Synlestes* the anterior side of the quadrilateral is about one-half the length of the posterior side; M^3 separates from M 1 + 2 proximal to the sub-nodus; Rs at the sub-nodus; Cu^1 and Cu^2 more closely approximate at their origin, Cu^1 more strongly arched. Supplementary sectors present.

To the South African genus *Chlorolestes*, the relation of *Chorismagrion* is also rather close. In this genus, M^3 separates from M 1+2 at the sub-nodus: Rs at Pnq 2; Cu^1 less strongly arched than in *Synlestes*; supplementary sectors present.

Prof. Calvert in his recent paper:* "The Fossil Odonate *Phenacolestes*, with a discussion of the venation of the legion *Podagrion*, Selys," gives a synopsis of the venational characters of this legion. The new genus would fall under—

AA.—M^3 separating from M 1+2 at the sub-nodus, only two antenodals, Rs beginning distad to the sub-nodus.

VV.—Area posterior to Cu^2 with one row of cells, one cubito-anal cross-vein.

For *Chorismagrion* a new rubric preceding *Chlorolestes* is required, based on the absence of the basal side of the quadrilateral and the absence of supplementary sectors. In regard to these latter it may be well to call attention to the minute rudiment at the edge of the wing between M^2 and Rs in the new genus.

The opportunity is suitable for giving a good wing photograph of *Hemiphlebia*, which Dr. Ris has also kindly supplied, as none of the existing figures seems to give a direct photographic representation of the wing. In sending this photograph he points out the existence of a minute cross-vein between A* detached from the anal margin and this margin, just at the Cuq. This detail, which Dr. Ris says is not known to him in any other Agrionid, is so minute in the photograph that it may be lost in reproduction. In one of my specimens it is more distinct, but it does not appear to be constantly present, and Tillyard's figure truly represents in this respect the condition of another example in my collection.

* Proc. Academy Nat. Sciences of Philadelphia, 1913, pp. 225–272.

Explanation of Plate IX.

Fig. 1. Wings of *Chorismagrion risi* (nat. length of h.-w. 22 mm.).
2. Wings of *Chorismagrion risi*, basal part more enlarged.
3. Apex of abdomen of *Chorismagrion risi*, from above.
4. Wings of *Hemiphlebia mirabilis* from Alexandra, Victoria (nat. length of h.-w. about 11 mm.).